

# **Ocean Planning Frameworks and Needs Assessment**

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Massachusetts Ocean Partnership

- 1. Inventory planning frameworks from around the world**
- 2. Explore human use and ocean resource compatibility analyses**
3. Stakeholder Needs Assessment
- 4. Summarize and evaluate the use and integration of science tools**
- 5. Develop and evaluate planning framework options for Massachusetts**

## The key issues include:

What are the **institutional arrangements** for planning and management?

How is **inter-jurisdictional coordination achieved** within and outside ocean planning boundary?

What are the **compatibilities** and **conflicts among human uses** and **between human uses and resources**?

How identified, analyzed and mapped?

What **management approaches** are used?

How is natural and social **science information integrated** into management?

What **science tools**, models and methodologies can be used to inform management decisions?

- (i) set forth the commonwealth's **goals, siting priorities** and **standards** for ensuring effective **stewardship** of its ocean waters held in **trust** for the benefit of the public;
- (ii) adhere to **sound management** practices, taking into account the **existing** natural, social, cultural, historic and economic **characteristics** of the planning areas;
- (iii) preserve and **protect the public trust**;
- (iv) reflect the **importance** of the waters of the commonwealth **to its citizens** who derive livelihoods and recreational benefits from fishing;
- (v) **value biodiversity and ecosystem** health;
- (vi) identify and **protect special, sensitive or unique** estuarine and marine life and **habitats**;
- (vii) address **climate change and sea-level rise**;
- (viii) **respect the interdependence of ecosystems**;
- (ix) **coordinate uses** that include international, federal, state and local **jurisdictions**;
- (x) **foster sustainable uses** that capitalize on economic opportunity without significant detriment to the ecology or natural beauty of the ocean;
- (xi) preserve and enhance **public access**;
- (xii) support the **infrastructure** necessary to sustain the economy and quality of life for the citizens of the commonwealth;
- (xiii) encourage **public participation** in decision-making;
- (xiv) and **adapt** to evolving knowledge and understanding of the ocean environment; and
- (xv) shall identify **appropriate locations** and **performance standards** for activities, uses and facilities allowed under sections 15 and 16 of chapter 132A.

# **1. Inventory planning frameworks from around the world**

*A sample of plans and programs evaluated:*

**Great Barrier Reef Marine Park**

**Florida Keys National Marine Sanctuary**

**Chesapeake Bay Program**

**Northwest Straits Marine Conservation Initiative (Washington State)**

**California Marine Life Protection Act**

**Trilateral Wadden Sea Plan (Germany, Netherlands, Denmark)**

**Integrated Management Plan for the North Sea**

**Spatial Plans for the North and Baltic Seas (Germany)**

**Irish Sea Pilot Project (UK)**

**Eastern Scotian Shelf Integrated Management Plan**

**Southeast Regional Marine Plan (Australia)**

**Norway Integrated Management Plan for the Barents Sea**

**New York Ocean and Great Lakes Ecosystem Conservation Council**

## **Impacts to be managed**

### **Use - Environment conflicts**

- human activities can damage natural resources  
e.g., loss of habitat, diversity of marine life

### **Use - Use conflicts**

- incompatible uses competing for ocean space conflict with one another  
e.g., shipping and offshore wind

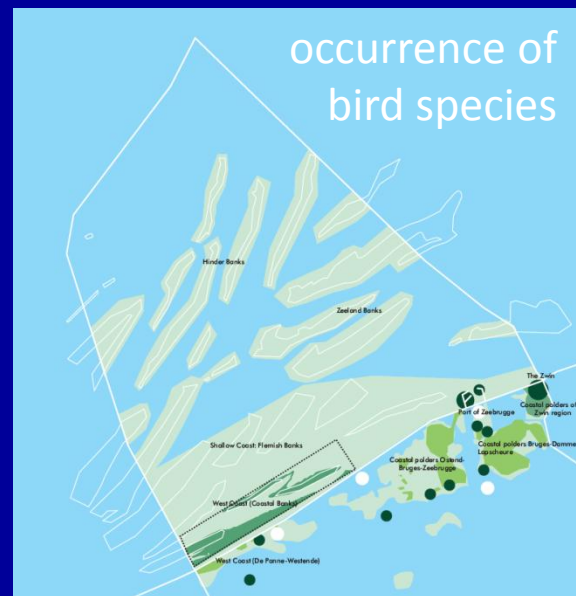
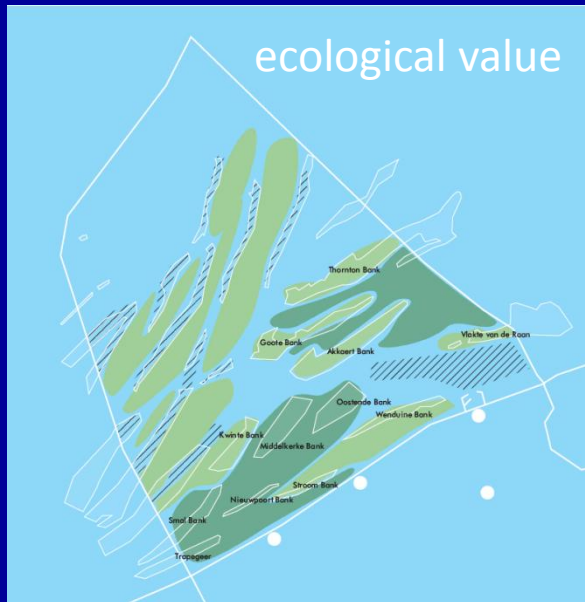
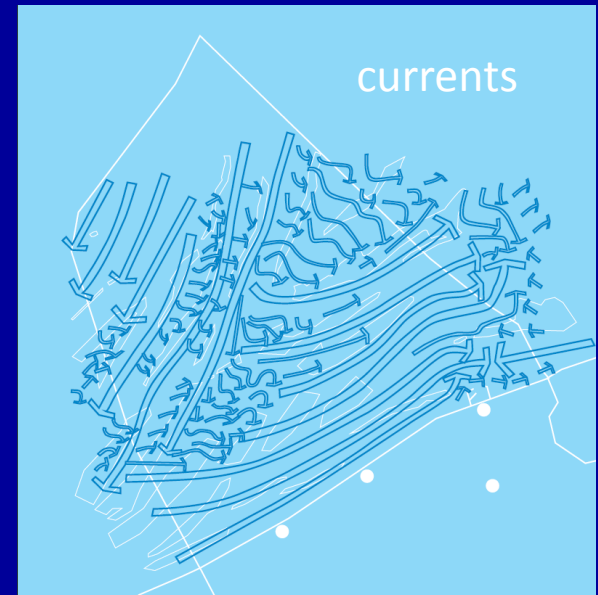
# Marine Spatial Plan

## Massachusetts Oceans Act of 2008

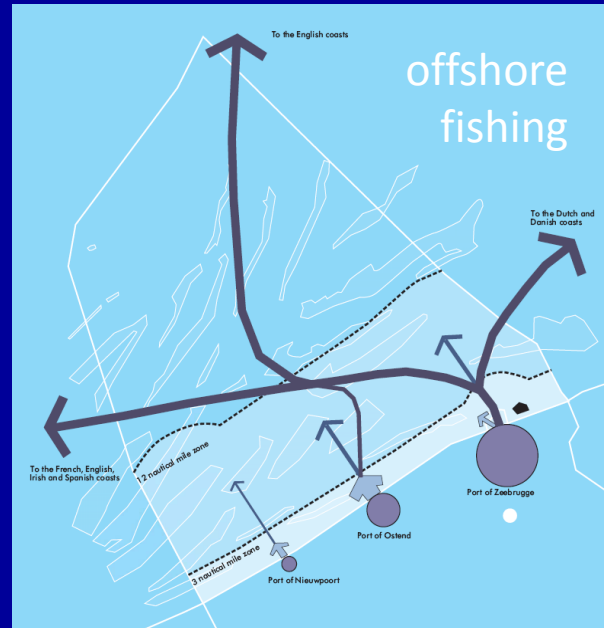
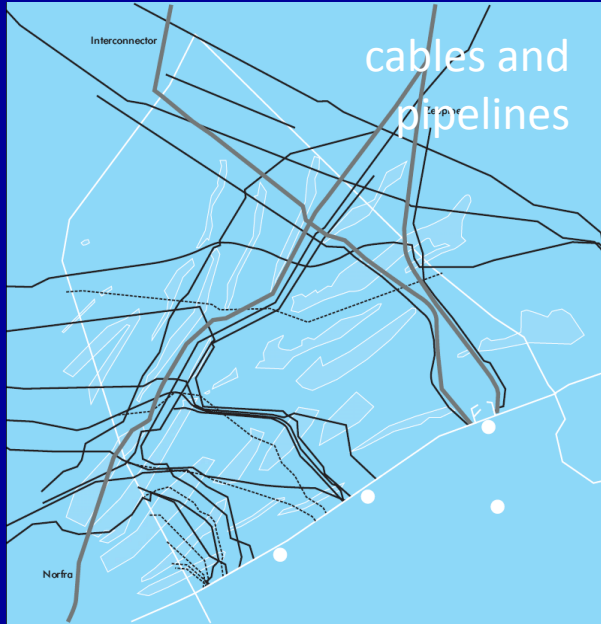
### MGL . 21A, Section 4C

- (a) requires the development of an integrated ocean management plan which may include maps, illustrations and other media.
- (d) (xv) The plan shall identify appropriate locations and performance standards for activities, uses and facilities allowed under the [the Ocean Sanctuaries Act].

# The Belgian Part of the North Sea Spatial Analysis: Physical Aspects



# The Belgian Part of the North Sea Spatial Analysis: Fixed Infrastructure



#### 4. Summarize and evaluate the use and integration of science tools

Decision-support tools and models

- Assessments of how the ecosystem is likely to change and implications for management
- Spatially explicit information about human activities affecting a specific area or ecosystem
- Models of ecosystems or key ecosystem processes
- Economic principles, analyses and models
- Simulations of consequences of management actions on natural resources and the economy

## 5. **Develop and evaluate planning framework options for Massachusetts**

Research yielded numerous alternative approaches.

Among those that seem promising:










### **Institutional/organizational arrangement**

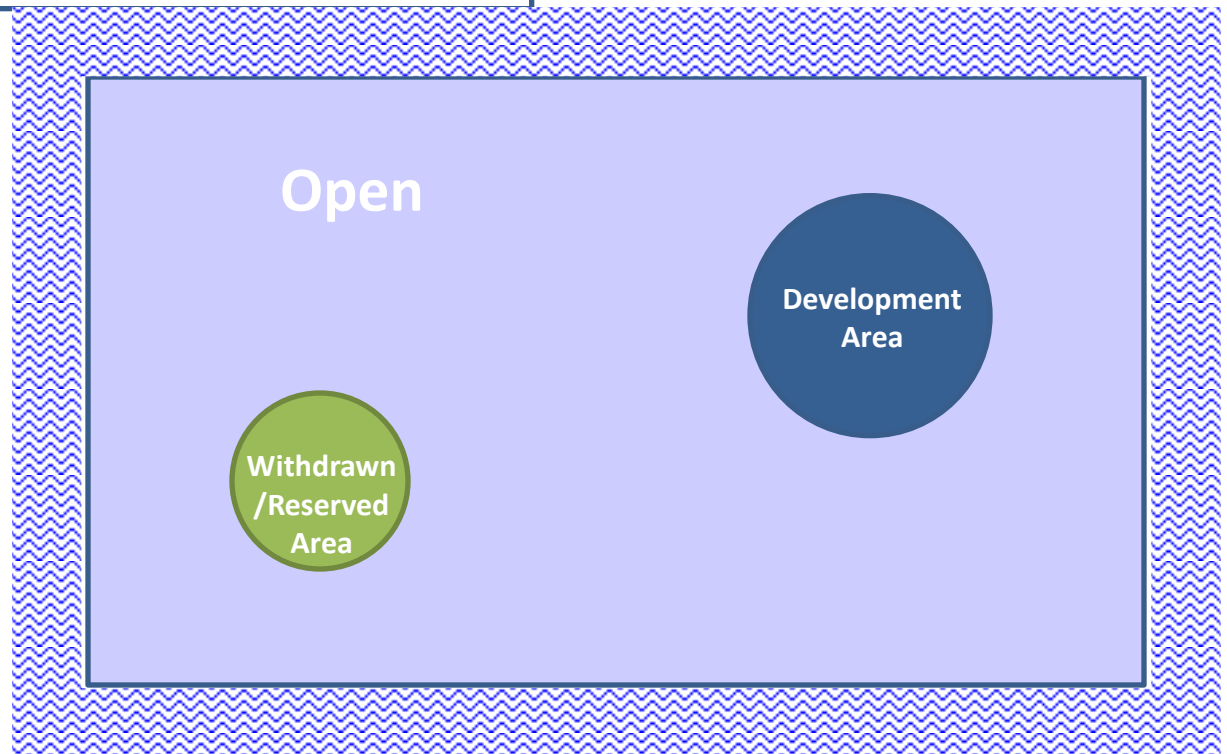
**Networked:** Utilization of existing (and new) authorities that are exercised based on the goals/policies of the Ocean Plan and, taken together, used to implement the management program.

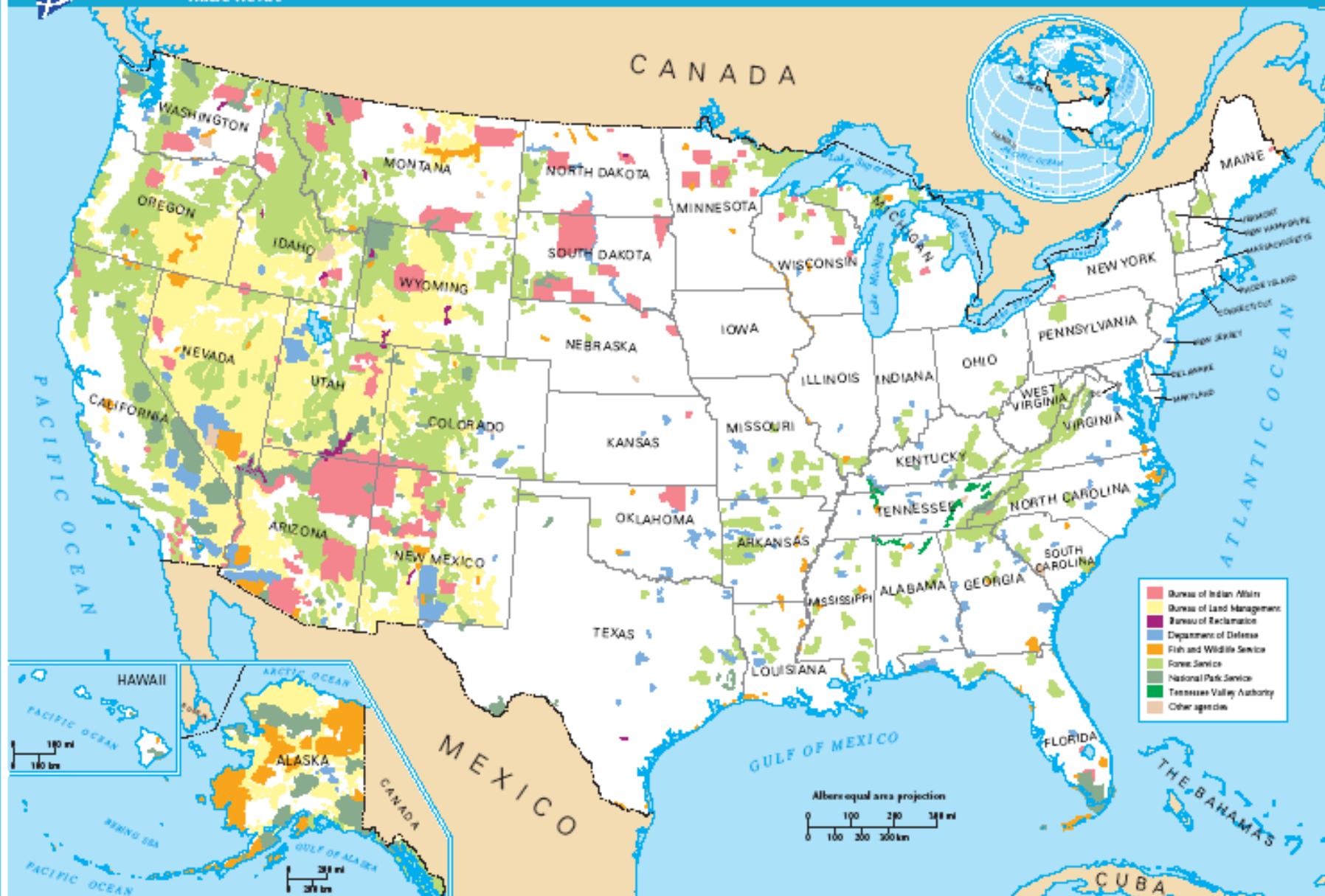
### **Federal public lands management approach**

Process of withdrawing and reserving certain areas [public lands] for specific purposes.

- withdrawing means limiting or prohibiting certain activities in areas
- reserving means designating withdrawn areas for specified purposes

Data	Concentration of Use/Ecological Value of Area			
		High	Med	Low
	Good			
	Fair			
	Poor			





## **Integrated multi-use ocean management: Ecosystem Based Approach**

Address the full range of human uses across sectors

Supported by science

Incorporate public and stakeholder input

Adaptable to changing conditions and needs

Support sustainable marine industries and resilient ecosystems